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(54) Title: CHIMERIC GABAB RECEPTOR

(57) Abstract: The present invention provides an isolated GABA<sub>B</sub> receptor protein comprising at least one GABA<sub>B</sub>R1 a subunit and at least one GABA<sub>B</sub>R2a subunit, characterized in that said GABA<sub>B</sub> receptor has one high affinity agonist binding site and one low affinity agonist binding site. In particular the isolated recombinant GABA<sub>B</sub> receptor protein expressed by the hGABA<sub>B</sub>R1a/GABA<sub>B</sub>R2 CHO cell line deposited at the Belgian Coordinated Collections of Microorganisms (BCCM) as CHO-K1 h-GABA-b R1a/R2 clone on August 22, 2003 with the accession number LMBP 6046CB. It is thus an object of the present invention to provide the hGABA<sub>B</sub>R1a/GABA<sub>B</sub>R2 CHO cell line deposited at the Belgian Coordinated Collections of Microorganisms (BCCM) as CHO-K1 h-GABA-b R1a/R2 clone on August 22, 2003 with the accession number LMBP 6046CB. 20 The invention also provides the use of the aforementioned cell line in a method to identify GABA<sub>B</sub> receptor agonists using a functional or a binding assay. In particular in a radioligand-binding assay comprising the use of radiolabeled agonists such as for example <sup>3</sup>H-GABA or <sup>3</sup>H-baclofen. In a particular embodiment the present invention provides the use of the aforementioned GABA<sub>B</sub> receptor in a method to identify a high affinity GABA<sub>B</sub> receptor agonist using a functional or a binding assay. In particular in a radioligand-binding assay comprising the use of radiolabeled agonists such as for example <sup>3</sup>H-GABA or <sup>3</sup>H-baclofen. Alternatively, the aforementioned binding assays are performed on cellular extracts, in particular cellular membrane preparations of the aforementioned cells.

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